REMARKS

Claims 1, 15, 17 and 18 are pending in the instant application. Claims 1, 15, 17 and 18 have been rejected. Reconsideration is respectfully requested in light of the following remarks.

The rejection of claims 1, 15, 17 and 18 under 35 U.S.C. § 102(e) as being anticipated by Anderson et al. (U.S. Patent 5,589,376) and by Anderson et al. (U.S. Patent 5,824,489) has been maintained. Arguments presented by Applicants in the last response regarding the fact that the Anderson patents do not teach harvesting of mammalian neuroepithelial stem cells by trypsinization prior to generation of neural crest stem cells were found unconvincing as the Examiner suggests that Anderson teach use of collagenase to harvest neuroepithelial stem cells in other sections and in particular in the '376 patent in "Example 1, lines 27-39 at col. 11". The Examiner suggests that trypsin is a known collagenase and that this is taught at "col. 11, lines 49-53" of the '376 patent. Thus, the Examiner suggests that the Anderson patents still teach all currently recited claim limitations.

Applicants respectfully disagree with the Examiner as the collagenase treatment referred to by the Examiner as taught at col.

11, lines 49-53 of the '376 patent and col. 14, lines 3-10 of the '489 patent was performed on **trunk sections** of rat embryos (see col. 11, lines 27-39 of the '376 patent) **prior to plating**, not on **neuroepithelial stem cells** obtained **subsequent to plating** on feeder-cell-independent culture on a substratum and in a media comprising fibroblast growth factor and chick embryo extract as set forth in the instant claims (see steps (b) and (c) of claim 1 and 15).

In fact, Anderson et al. provide no teaching whatsoever regarding use of neuroepithelial stem cells to generate neural crest stem cells. It appears that the Examiner may have misinterpreted the teachings of Anderson et al. and mistakenly assumed that neural crest stem cells of Anderson et al. were derived from neuroepithelial stem cells in the neural tube. This is not correct. Neural tube present in undissociated form in culture does not continue to produce neural crest stem cells. Instead, it differentiates into neurons and astrocytes. In fact, neuroepithelial stem cells in the neural tube extend neurites into the surrounding tissue. Thus, the neural crest stem cells, which migrated from the neural tube, proliferated and continued to produce neural crest stem cells in Anderson et al., were already

present on the outside of the neural tube at the apex. The neural tube is actually removed after 24 hours as a contaminant. Clearly, were neuroepithelial stem cells in the neural tube grown in Anderson's culture conditions believed to be the source of neural crest cells, neither Anderson nor the inventors of the present invention would have actively interfered to remove the neural tube and discard it. Data in various species also indicate that the neural tube, without extrinsic signals that are absent in the culture conditions of Anderson et al., will not make neural crest stem cells. Applicants would be happy to discuss this issue further in a Telephone Interview with the Examiner should the Examiner have further questions regarding differences between the methodologies of the Anderson patents and the instant invention.

MPEP § 2131 and the case law are quite clear, "to anticipate a claim the identical invention must be shown in as complete detail as is contained . . . in the claim". *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Further, the elements must be arranged as required by the claim. MPEP § 2131 and *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). The Anderson patents do not teach the identical method being claimed. In fact, as discussed in detail in the preceding paragraph, they teach a different source for their cells as well as

different method steps to obtain their cells. Further, the elements of Anderson et al., in this case the method steps, are not arranged as required by the instant claims.

Accordingly, the Anderson patents cannot anticipate the instant claimed invention.

Withdrawal of this rejection under 35. U.S.C. § 102(e) is therefore respectfully requested.

Conclusion

Applicants believe that the foregoing comprises a full and complete response to the Office Action of record. Accordingly, favorable reconsideration and subsequent allowance of the pending claims is earnestly solicited.

Respectfully submitted,

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